

WHAT IS CLAIMED IS:

1. In an online messaging system supporting transmission of attachments, a method for automatically processing messages containing attachments, the method

comprising:

specifying a preference for formatting attachments that accompany messages;

receiving a particular message having a particular attachment;

removing the particular attachment from the particular message;

inserting a link into the particular message, said link capable of referencing the particular attachment that has been removed;

delivering the particular message to an intended recipient; and

in response to invocation of the link by the intended recipient, retrieving a copy of the particular attachment that is automatically formatted based on the specified preference.

2. The method of claim 1, wherein the preference is associated with a particular user.

3. The method of claim 1, wherein the preference is associated with a particular device of a user.

4. The method of claim 1, wherein said online messaging system comprises an e-mail messaging system.

5. The method of claim 1, wherein said attachment includes media objects.

6. The method of claim 5, wherein said media objects comprise selected ones of audio content, video content, images, and documents.

7. The method of claim 1, wherein said preference includes specifying that attachments which comprise images be formatted to a particular resolution.

8. The method of claim 1, wherein said preference includes specifying that attachments which comprise images be transformed from one file format to another.

9. The method of claim 1, wherein said step of receiving a particular message includes:

receiving the particular message at an SMTP server.

10. The method of claim 9, wherein said step of removing the particular attachment occurs at said SMTP server.

11. The method of claim 9, wherein said step of removing the particular attachment occurs after processing by the SMTP server.

12. The method of claim 1, wherein said particular message includes a MIME attachment.

13. The method of claim 12, wherein said MIME attachment includes media objects.

14. The method of claim 12, wherein said MIME attachment includes digital images.

15. The method of claim 1, wherein said link comprises a Uniform Resource Locator (URL) referencing said attachment that has been removed.

16. The method of claim 1, wherein the copy of the particular attachment is automatically formatted when a request is received to retrieve the particular attachment.

17. The method of claim 1, wherein the copy of the particular attachment is automatically formatted when the particular attachment is removed from the particular message.

18. The method of claim 1, wherein copies of attachments that are removed are stored in a network repository.

19. The method of claim 1, wherein said formatting includes converting objects within an attachment from one format to another type of format.

20. The method of claim 1, wherein said formatting includes decreasing the size of objects within an attachment.

21. The method of claim 20, wherein said decreasing the size of objects includes transforming the objects to a lower resolution.

22. The method of claim 21, wherein said decreasing the size of objects includes transforming the objects from color to monochromatic.

23. The method of claim 1, wherein formatted copies of objects within the particular attachment are stored in a network repository.

24. The method of claim 23, wherein said network repository is accessible by a Web browser for shared access among multiple participants.

25. The method of claim 1, wherein said particular attachment includes JPEG-formatted digital images.

5 26. In an online system, a method for providing digital images to target devices, the method comprising:

receiving a message having one or more attached objects;

detaching said objects from said message;

automatically transforming copies of said objects to a resolution fidelity that is more useful to said target devices;

10 for each detached object, generating a reference allowing retrieval of a transformed copy of the detached object; and

delivering the message to the target devices, the message including said generated reference for each detached object.

15 27. The method of claim 26, wherein said transforming step includes converting copies of said objects to another type of format.

20 28. The method of claim 26, wherein said transforming step includes decreasing the size of the copies of said objects.

25 29. The method of claim 28, wherein the step of decreasing the size of said objects includes transforming the objects to a lower fidelity.

30 30. The method of claim 26, wherein transformed copies of said objects are stored in a network repository.

31. The method of claim 26, wherein said objects comprise digital images.

32. The method of claim 31, wherein said digital images are stored in JPEG format.

33. The method of claim 26, wherein said reference includes a Uniform Resource Locator (URL) for referencing a transformed copy of a detached object.

34. In an online system, a method for providing a particular target device with a digital image optimally formatted for that particular target device:

specifying a device type for the particular target device;
based on the specified device type, determining device capabilities for the particular target device;

before delivery of digital images to the particular target device, automatically transforming said digital images to an optimal format for the particular target device; and delivering said transformed digital images to the particular target device.

35. The method of claim 34, wherein said step of specifying a device type includes:

allowing user specification of a device type for the particular target device.

36. The method of claim 35, further comprising:

providing a Web browser interface allowing user specification of a device type for the particular target device.

37. The method of claim 34, wherein said step of specifying a device type includes:

querying the particular target device for determining its device type.

38. The method of claim 34, wherein said device capabilities include communication bandwidth available to the particular target device.

39. The method of claim 34, wherein said device capabilities include display capabilities available to the particular target device.

40. The method of claim 34, wherein said optimal format includes an optimal image size.

41. The method of claim 34, wherein said optimal format includes an optimal image resolution.

42. The method of claim 34, wherein said optimal format includes an optimal image file format for the particular target device.

43. The method of claim 34, further comprising:
allowing a given user to specify a plurality of target devices.

44. The method of claim 43, wherein said determining device capabilities includes:
determining a least common denominator among the plurality of target devices specified by the user.

45. The method of claim 43, wherein said least common denominator comprises an image file format that is compatible with the plurality of target devices specified by the user.

46. An e-mail system for providing e-mail having attachments, the system comprising:
an e-mail server for receiving a particular e-mail message having an attachment, the particular e-mail message being addressed to a recipient having a target device capable of receiving e-mail, the attachment including one or more objects;

an attachment processing module for replacing the attachment with at least one reference;

a transformation module for transforming the objects of the attachment to a desired format, based on capabilities of the target device; and

a retrieval module allowing retrieval of the transformed objects, in response to invocation of at least one reference.

47. The system of claim 46, wherein the attachment of the particular e-mail message comprises a MIME attachment.

48. The system of claim 47, wherein the MIME attachment includes one or more digital images.

49. The system of claim 46, wherein said e-mail server comprises an SMTP server.

50. The system of claim 46, wherein said attachment processing module operates as a plug-in module to said e-mail server.

51. In an online messaging system supporting transmission of attachments, a method for automatically processing messages containing attachments, the method comprising:

specifying a preference for formatting attachments that accompany messages;
receiving a particular message having a particular attachment;
removing the particular attachment from the particular message;
inserting a copy of the particular attachment that is automatically formatted based on the specified preference; and
delivering the particular message to an intended recipient.